



SSGIC

Analysis Workshop Summary

May 23-24, 2000

Results, Decisions, Direction

Initial Project Area/Scope

The Kaweah and Tule watersheds will be the focus of the initial data development and analysis work. If, in the course of acquiring data for the focus watersheds, project-wide data is efficiently available at the same time, that data will also be acquired opportunistically.

Definitions

The following definitions were adopted by the SSGIC project.

Hazard: *Fire behavior characteristics*

Hazard potential is a combination of fire burning through fuels under specific environmental conditions in relation to the ecological, social health/safety, and economic outcomes of a given fire event. The mere presence of fire or fuels alone do not necessarily constitute a hazard to humans or resources.

Tools such as Behave and Farsite can help model the potential fire behavior characteristics under different weather, fuel moistures, fuel arrangements, and fuel loads. The primary fire behavior characteristics of interest include fire intensity, flame length, flame height, duration, direction of spread, and rate of spread.

Models such as FOFEM (First Order Fire Effects Model) and databases such as the FEIS (Fire Effects Information System) can help anticipate the effects of a given fire event on certain resources.

Risk: *Probability of fire start*

The risk associated with available fuels is their probability of being exposed to an ignition. If fuels never have the opportunity to ignite, they pose no imminent fire hazard.

WFSI: *Wildland Fire Susceptibility Index.*

The probability of a particular spot on the ground *burning* and spreading once an ignition occurs.

Value: *Social, economic, health/safety factor, or natural or cultural resource subject to change due to fire event or fire suppression.*

Fire induced change in value may be negative or positive.

Analysis Tools to be Applied

Analysis	Purpose	Data Needs	Lead
Fire Return Interval Departure FRID	Assess ecological need for fire	<ul style="list-style-type: none"> • Max. fire return interval for each veg type within project area • Date of last fire for each cell in project area 	Tony Caprio <i>Sequoia & Kings Canyon National Parks</i>
Asset Analyzer	Assess and prioritize values at risk	<ul style="list-style-type: none"> • Values at risk • Location of values • Assessment of potential change 	Robin Marose <i>California Department of Fire and Forestry</i>
FLAMMAP	Hazard Assessment	Required: <ul style="list-style-type: none"> • Elevation • Slope • Aspect • Fuel model • Canopy cover • Physioigraphic features (rivers, roads, etc) • Weather station influence zones • Historic weather data (20 year minimum) • Historic escaped fire spread rates Optional: <ul style="list-style-type: none"> • Stand height • Crown bulk density • Crown base height 	To be assigned
Fire Occurrence Areas FOA	Risk Assessment	<ul style="list-style-type: none"> • Historic ignition locations 	Karen Holmstrom
Wildland Fire Susceptibility Index WFSI	Assess probability of burning. - Integrates FLAMMAP hazard analysis and FOA risk analysis into single index	<ul style="list-style-type: none"> • FOA results • FLAMMAP results 	To be assigned

Analysis Process

- All analysis GIS based and spatially explicit



